

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A Coanda flow amplifier, comprising:
a suction intake;
an outlet;
a fluid channel extending between the suction intake and the outlet; ~~and~~
a drive flow inlet that is in fluid flow communication with the fluid
channel via a drive-flow discharge slit; and
~~wherein an electronic control unit that adjusts the flow cross section of the~~
~~drive-flow discharge slit is variably adjustable during operation of the Coanda~~
~~flow amplifier such that a pressure ratio between an output pressure of the drive~~
~~flow that leaves the drive-flow discharge slit and an intake pressure of the drive~~
~~flow that enters the drive-flow discharge slit does not exceed a critical pressure~~
ratio.

2. (Previously Presented) The Coanda flow amplifier according to
claim 1, wherein the drive-flow discharge slit can be completely closed.

3. (Previously Presented) The Coanda flow amplifier according to claim 1, wherein the Coanda flow amplifier comprises a flow-guiding element that is arranged between the suction intake and the outlet, and is axially displaceable along a longitudinal axis of the Coanda flow amplifier.

4. (Previously Presented) The Coanda flow amplifier according to claim 3, wherein:

the suction intake is arranged in a first housing section; and

the drive-flow discharge slit is formed between a downstream face of the first housing section and an upstream face of the flow-guiding element.

5. (Previously Presented) The Coanda flow amplifier according to claim 3 wherein at least in an area of the drive-flow discharge slit, the flow-guiding element is surrounded by a chamber that connects the drive-flow inlet with the drive-flow discharge slit.

6. (Previously Presented) The Coanda flow amplifier according to claim 5, wherein the auxiliary displaceable flow-guiding element carries through to the second housing section and is guided in the second housing section in a sealed manner.

7. (Previously Presented) The Coanda flow amplifier according to claim 3, wherein:

the outlet is arranged in a third housing section; and

a downstream section of the flow-guiding element protrudes into the third housing section and is guided in the third housing section in a sealed manner.

8. (Previously Presented) The Coanda flow amplifier according to claim 7, wherein a sealing element seals the flow-guiding element against the third housing section; and

the sealing element is arranged in a groove formed on the third housing section and works together with a circumferential surface of the flow-guiding element.

9. (Previously Presented) The Coanda flow amplifier according to claim 6, wherein quasi-static sealing elements are provided to seal the flow-guiding element against at least one of the second and third housing sections.

10. (Previously Presented) The Coanda flow amplifier according to claim 3, wherein an actuating element is provided to effect the axial displacement of the flow-guiding element.

11. (Previously Presented) The Coanda flow amplifier according to claim 10, wherein the actuating element is a piezo actuator.

12. (Previously Presented) The Coanda flow amplifier according to claim 10, wherein the flow-guiding element is resiliently pre-loaded in a direction opposite to the fluid-flow direction in the fluid channel to close the drive-flow discharge slit when the actuating element is in its inactive state.

13. (Withdrawn) A method for operating a Coanda flow amplifier having a suction intake, an outlet, a fluid channel extending between the suction intake and the outlet, and a drive flow inlet that is in fluid flow communication with the fluid channel via a drive-flow discharge slit, wherein the flow cross section of the drive-flow discharge slit is variably adjustable; said method comprising:

feeding a fluid flow that is to be amplified to a suction intake;

feeding a drive-flow to the drive-flow inlet;

adjusting a variable flow cross section of the drive-flow discharge slit such that a pressure ratio between the output pressure of the drive flow when it leaves the drive-flow discharge slit and an intake pressure of the drive flow when it enters the drive-flow discharge slit does not exceed a critical pressure ratio.

14. (Withdrawn) The method according to claim 13, wherein the variable flow cross section of the drive-flow discharge slit is adjusted so that the pressure ratio between the output pressure of the drive flow when it leaves the drive-flow discharge slit and the intake pressure of the drive flow when it enters the drive-flow discharge slit is equal to the critical pressure ratio.

15. (Withdrawn) A fuel cell system comprising:
at least one fuel cell;
a fluid source;
a fluid line;
a Coanda flow amplifier arranged in the fluid line, with both a suction intake and an outlet of the Coanda flow amplifier being fluid-connected to the fluid line and a drive-flow inlet of the Coanda flow amplifier being fluid-connected to the fluid source;
wherein the Coanda flow amplifier includes,
a suction intake;
an outlet;
a fluid channel extending between the suction intake and the outlet; and
a drive flow inlet that is in fluid flow communication with the fluid channel via a drive-flow discharge slit;
wherein the flow cross section of the drive-flow discharge slit is variably adjustable.

16. (Withdrawn) The fuel cell system according to claim 15,
wherein the fluid line is a purge-gas feed line that is connected to the fuel cell.

17. (Withdrawn) The fuel cell system according to claim 15,
wherein the fluid line is a cathode gas supply line that is connected to the fuel
cell.

18. (Withdrawn) The fuel cell system according to claim 15,
wherein the fluid line is a cold-starting-gas supply line that is connected to a
cold-starting component.

19. (Withdrawn) The fuel cell system according to claim 15,
wherein the fluid line is an exhaust-gas recirculation line for the recirculation of
fuel cell exhaust gas.

20. (Withdrawn) The fuel cell system according to claim 19,
wherein the exhaust gas recirculation line is an anode-exhaust-gas recirculation
line for the recirculation of anode exhaust gas and the anode gas is supplied to
the fuel cell from the fluid source.

21. (New) The Coanda flow amplifier according to claim 1, wherein the flow cross section of the drive-flow discharge slit is variably adjustable during operation of the Coanda flow amplifier.